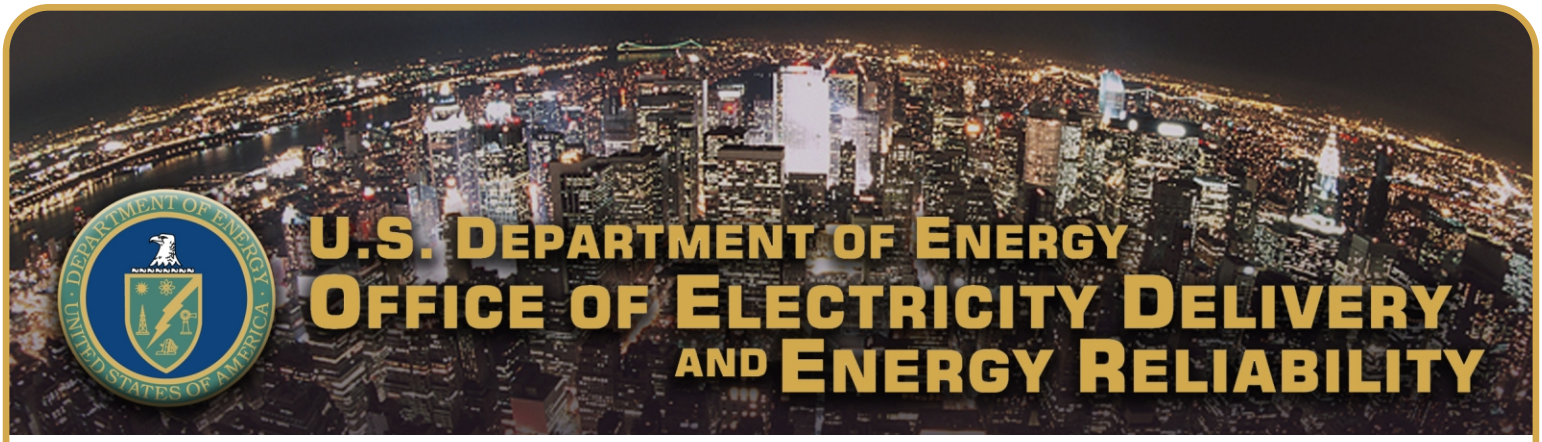


U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability

"We must … harness the power of technology to help us deliver electricity more efficiently. It's time for this country to build a modern electricity grid so we can protect American families and businesses from damaging power outages."

— President George W. Bush, June 15, 2005

Today, the availability of and access to electricity is something most Americans take for granted. Electricity keeps our homes and offices lit, factories humming, communications flourishing, computers networking, hospitals operating, and buildings comfortable.

Electricity is so fundamental that people often take it for granted even though it is vital to every aspect of our lives.

There has not been adequate investment in the power generation, power transmission, demand-side solutions, and infrastructure upkeep to accommodate the projected increases in electricity consumption and also satisfy the demand for electricity reliability. This state of the grid can be linked to:

- regulatory uncertainty
- environmental concerns
- changing market dynamics
- difficulty of siting and permitting new transmission

The Energy Information Administration estimates that by the year 2030, U.S. electricity consumption will increase by 43 percent from the 2005 level, even when accounting for advances in energy efficiency.

The Department of Energy's Office of Electricity Delivery and Energy Reliability (OE) is leading national efforts to modernize the electric grid. Through research, development, planning and analysis, OE works to create a future electricity system that is less vulnerable to disruption, more efficient, and is designed and operated to serve the new markets and new energy demands of the 21st century.

When America's energy system is disrupted, we provide energy experts to assist first responders and local utilities in bringing energy systems back as quickly as possible. OE works to broaden America's energy options by breaking down barriers to efficient electricity markets.

Meeting our future electricity needs will not occur overnight or with one solution. We must meet this need through a combination of:

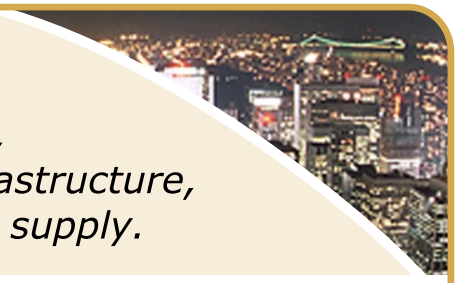
- new generation
- additional transmission
- a modernized delivery system
- advanced technologies

www.oe.energy.gov **Phone: 202-586-1411**

Office of Electricity Delivery & Energy Reliability
US Department of Energy – 1000 Independence Avenue, SW – Washington, DC 20585

Our Mission:

To lead national efforts to modernize the electric grid, enhance the security and reliability of the energy infrastructure, and facilitate recovery from disruptions to the energy supply.



Perhaps the greatest challenge ahead will be developing the appropriate network of wires and other facilities to reliably and responsibly deliver electricity. For example, the Department expects that much of the Nation's future electricity demands will be supplied by clean and renewable sources of energy. Wind generation, for example, holds great promise, but will almost always be sited in locations far from densely populated demand centers.

Government alone cannot modernize and expand the nation's energy infrastructure, protect it from threats or quickly restore it in emergencies. Partnerships with industry, utilities, States, other Federal agencies, universities, national laboratories, and other stakeholders-are essential to our efforts. The Office of Electricity and Energy Reliability's three divisions, and the National Energy Technology Laboratory Site Office add essential technical expertise to support infrastructure protection and emergency response efforts.

What We Do:

The Research and Development Division manages a portfolio of projects to create "next generation" electric delivery technologies, and accelerate their introduction to the marketplace. By understanding the vulnerabilities and weaknesses of today's grid, we can use this information to develop better technology for the future.

The Permitting Siting and Analysis Division implements mandatory requirements set by the Energy Policy Act of 2005 to modernize the electric grid and enhance the reliability of the energy infrastructure by contributing to the development and implementation of electricity policy at the Federal and State level. This Division is also tasked with analyzing transmission congestion, proposing energy corridors for the Secretary's consideration, coordinating Federal agency review of applications to site transmission facilities on Federal lands, and authorizing international transmission facilities and exports of electricity.

The Infrastructure Security and Energy Restoration Division coordinates the Department of Energy's response to energy emergencies and helps State and local governments and the private sector recover from disruptions to the energy infrastructure. The Division works with government entities and industry to develop a viable critical infrastructure protection program to ensure the security of the nation's energy systems and a reliable flow of energy.

Learn more about what we are doing by visiting our website at www.oe.energy.gov